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EXAMINER

PATEL, HARESH N

ART UNIT	PAPER NUMBER
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2154

NOTIFICATION DATE	DELIVERY MODE
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09/12/2007

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

jcartee@kmob.com  
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## Office Action Summary

Application No.

10/781,341

Applicant(s)

KODAMA ET AL.

Examiner

Haresh Patel

Art Unit

2154

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 23 July 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 July 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to: See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 6/1/04, 9/29/04.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- ☐ Notice of Informal Patent Application
- ☐ Other: \_\_\_\_\_.

### **DETAILED ACTION**

1. Claims 1-24 are subject to examination.

#### ***Priority***

2. Applicant's claim for domestic priority, 60,469,556, under 35 U.S.C. 119(e) is acknowledged.

#### ***Specification***

3. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed. The present title, remote direct memory access for iSCSI, is too broad and is not sufficient for proper classification of the claimed subject matter.
4. The abstract is objected because a patent abstract is a concise statement of the technical disclosure of the patent and should include that which is new in the art to which the invention pertains. If the patent is of a basic nature, the entire technical disclosure may be new in the art, and the abstract should be directed to the entire disclosure. If the patent is in the nature of an improvement in an old apparatus, process, product, or composition, the abstract should include the technical disclosure of the improvement. In certain patents, particularly those for compounds and compositions, wherein the process for making and/or the use thereof are not obvious, the abstract should set forth a process for making and/or use thereof. If the new technical disclosure

Art Unit: 2154

involves modifications or alternatives, the abstract should mention by way of example the preferred modification or alternative. The abstract should not refer to purported merits or speculative applications of the invention and should not compare the invention with the prior art.

Where applicable, the abstract should include the following:

- (1) if a machine or apparatus, its organization and operation;
- (2) if an article, its method of making;
- (3) if a chemical compound, its identity and use;
- (4) if a mixture, its ingredients;
- (5) if a process, the steps.

Further the abstract should not contain "may be" etc. Correction is required. See MPEP § 608.01(b).

### ***Drawings***

5. The figures submitted on 7/23/04 are acknowledged.

### ***Information Disclosure Statement***

6. An initialed and dated copy of the applicant's IDS form 1449, paper dated 9/29/04, 6/1/04, is attached to the instant Office action.

### ***Claim Objections***

7. Claims 1-23 are objected to because of the following informalities:

"adapted for" should be replaced with a gerund in order to make the limitation more positive for examination. Appropriate correction is requested.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

Art Unit: 2154

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

8. Claims 1-15, 17-24 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites the limitations, "capable of". These limitations are indefinite for failing to particularly point out and distinctly claim the subject matter in the claim.

Claim 1 recites the limitations, "partially controlling a device". These limitations are indefinite for failing to particularly point out and distinctly claim the subject matter in the claim.

Claim 6 recites the limitations, "can be". These limitations are indefinite for failing to particularly point out and distinctly claim the subject matter in the claim.

The term "recognized" in claim 10 is a relative term, which renders the claim indefinite.

The term "substantially" in claims, 17- 24 is a relative term, which renders the claim indefinite.

### ***Claim Rejections - 35 USC § 102***

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Art Unit: 2154

10. Claims 1-24 are rejected under 35 U.S.C. 102(e) as being anticipated by McDaniel et al. 2004/0073622, BroadCom Corporation (Hereinafter McDaniel-BroadCom).

11. Referring to claim 1, McDaniel-BroadCom discloses a storage networking device capable of communicating with a remote storage networking device (e.g., page 3), comprising: a controller configured to manage the receipt of storage networking data and buffer locational data from a remote storage networking device (e.g., page 3), wherein the storage networking data includes at least one command for at least partially controlling a device attached to a storage network and is transmitted using a protocol adapted for the transmission of storage networking data (e.g., page 3); and a buffer memory configured to at least temporarily store at least part of the storage networking data at a location within the buffer memory that is based at least in part on the locational data such that the storage networking device provides direct access to the buffer memory (e.g., page 4).

12. Referring to claim 2, McDaniel-BroadCom discloses the claimed limitations as rejected above. McDaniel-BroadCom also discloses wherein the protocol adapted for the transmission of storage networking data comprises iSCSI (e.g., page 3).

13. Referring to claim 3, McDaniel-BroadCom discloses the claimed limitations as rejected above. McDaniel-BroadCom also discloses wherein the storage networking device is a target device and the remote storage networking device is an initiator device (e.g., page 3).

14. Referring to claim 4, McDaniel-BroadCom discloses the claimed limitations as rejected above. McDaniel-BroadCom also discloses wherein the storage networking device is an initiator device and the remote storage networking device is a target device (e.g., page 3).

15. Referring to claim 5, McDaniel-BroadCom discloses the claimed limitations as rejected above. McDaniel-BroadCom also discloses wherein the locational data comprises a pointer to a location within the buffer memory (e.g., page 3).

16. Referring to claim 6, McDaniel-BroadCom discloses the claimed limitations as rejected above. McDaniel-BroadCom also discloses a data pointer table comprising information from which a pointer to a location within the buffer memory can be calculated, wherein the locational data comprises an index into the data pointer table (e.g., page 4).

17. Referring to claim 7, McDaniel-BroadCom discloses the claimed limitations as rejected above. McDaniel-BroadCom also discloses wherein the locational data received from the remote storage networking device is based on information transmitted from the storage networking device to the remote storage networking device (e.g., page 4).

18. Referring to claim 8, McDaniel-BroadCom discloses the claimed limitations as rejected above. McDaniel-BroadCom also discloses wherein the storage networking device is configured to transmit the information on which the locational data is based within a packet that indicates that the storage networking device is ready to receive data (e.g., page 4).

19. Referring to claim 9, McDaniel-BroadCom discloses the claimed limitations as rejected above. McDaniel-BroadCom also discloses a connection lookup table defining a plurality of connections between the storage networking device and one or more remote storage networking devices, wherein the locational data is further configured to identify one of the connections in the connection lookup table (e.g., page 4).

20. Referring to claim 10, McDaniel-BroadCom discloses the claimed limitations as rejected above. McDaniel-BroadCom also discloses wherein the locational data is used to verify that data received by the storage networking device comes from a recognized connection (e.g., page 4).

21. Referring to claims 11, 12, McDaniel-BroadCom discloses the claimed limitations as rejected above. McDaniel-BroadCom also discloses wherein the protocol adapted for the transmission of storage networking data comprises iSCSI (e.g., page 3).

22. Referring to claims 13-15, McDaniel-BroadCom discloses the claimed limitations as rejected above. McDaniel-BroadCom also discloses iSCSI acceleration hardware configured to accelerate the processing of iSCSI communications received by the storage networking device (e.g., page 3).

23. Referring to claim 16, McDaniel-BroadCom discloses a method of storing data in a directly accessible buffer memory of a storage networking device (e.g., page 3), the method



comprising: receiving storage networking data and first locational data over a network from a remote storage networking device (e.g., page 3), wherein the storage networking data includes at least one command for at least partially controlling a device attached to a storage network and is transmitted using a protocol adapted for the transmission of storage networking data (e.g., page 3), and wherein the first locational data is configured to specify at least indirectly a location within a buffer memory of a storage networking device; determining based at least in part on the first locational data, a location within the buffer memory (e.g., page 3); and storing within the buffer memory, at the location determined at least in part by the first locational data, the storage networking data (e.g., page 4).

24. Referring to claim 17, McDaniel-BroadCom discloses the claimed limitations as rejected above. McDaniel-BroadCom also discloses transmitting second locational data to a remote storage networking device, wherein the first locational data is substantially the same as the second locational data, such that the storage networking device assigns the location within buffer memory that the storage networking data is stored (e.g., page 4).

25. Referring to claim 18, McDaniel-BroadCom discloses the claimed limitations as rejected above. McDaniel-BroadCom also discloses wherein determining a location includes generating from the first locational data a pointer into the buffer memory (e.g., page 4).

Art Unit: 2154

26. Referring to claim 19, McDaniel-BroadCom discloses the claimed limitations as rejected above. McDaniel-BroadCom also discloses wherein generating the pointer includes extracting the pointer from the first locational data (e.g., page 3).

27. Referring to claim 20, McDaniel-BroadCom discloses the claimed limitations as rejected above. McDaniel-BroadCom also discloses wherein generating the pointer includes extracting from a part of the first locational data an index into a data pointer table and using the index to extract the pointer from the data pointer table (e.g., page 3).

28. Referring to claim 21, McDaniel-BroadCom discloses the claimed limitations as rejected above. McDaniel-BroadCom also discloses wherein the part of the first locational data comprising an index is encrypted within the first locational data (e.g., page 3).

29. Referring to claim 22, McDaniel-BroadCom discloses the claimed limitations as rejected above. McDaniel-BroadCom also discloses wherein the protocol adapted for the transmission of storage networking data comprises iSCSI and wherein receiving the storage networking data and the first locational data includes receiving the storage networking data and the first locational data within a first Protocol Data Unit and transmitting the second locational data includes transmitting the second locational data in a second Protocol Data Unit (e.g., page 4).

30. Referring to claim 23, McDaniel-BroadCom discloses the claimed limitations as rejected above. McDaniel-BroadCom also discloses comparing a sum of an offset from the first Protocol

Art Unit: 2154

Data Unit and a data length from the first Protocol Data Unit with a data length from the second Protocol Data Unit (e.g., page 4).

31. Referring to claim 24, McDaniel-BroadCom discloses a method of transmitting storage networking data from a remote storage networking device to a storage networking device (e.g., page 3), comprising: transmitting, within a packet that indicates that a storage networking device is ready to receive data, a first locational data from the storage networking device to a remote storage networking device (e.g., page 3); receiving at the storage networking device a second locational data and a storage networking data from a remote storage networking device, wherein the second locational data is generated by the remote storage networking device based at least in part on the first locational data and has substantially similar data as the first locational data (e.g., page 3), and wherein the storage networking data includes at least one command for at least partially controlling a device attached to a storage network and is transmitted using the iSCSI protocol (e.g., page 3); generating, based at least in part on the second locational data, a location in a buffer memory of the storage networking device; and storing the storage networking data at the generated location in the buffer memory (e.g., page 4).

### ***Conclusion***

32. The prior art made of record (forms PTO-892 and applicant provided IDS cited arts) and not relied upon is considered pertinent to applicant's disclosure.

Examiner has cited particular columns and line numbers and/or paragraphs and/or sections and/or page numbers in the reference(s) as applied to the claims above for the


Art Unit: 2154

convenience of the applicant. Although the specified citations are representative of the teachings of the art and are applied to the specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested from the applicant in preparing responses, to fully consider the references in entirety, as potentially teaching, all or part of the claimed invention, as well as the context of the passage, as taught by the prior art or disclosed by the Examiner.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Haresh Patel whose telephone number is (571) 272-3973. The examiner can normally be reached on Monday, Tuesday, Thursday and Friday from 10:00 am to 8:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nathan Flynn, can be reached at (571) 272-1915. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

 Haresh Patel

Haresh Patel

August 26, 2007